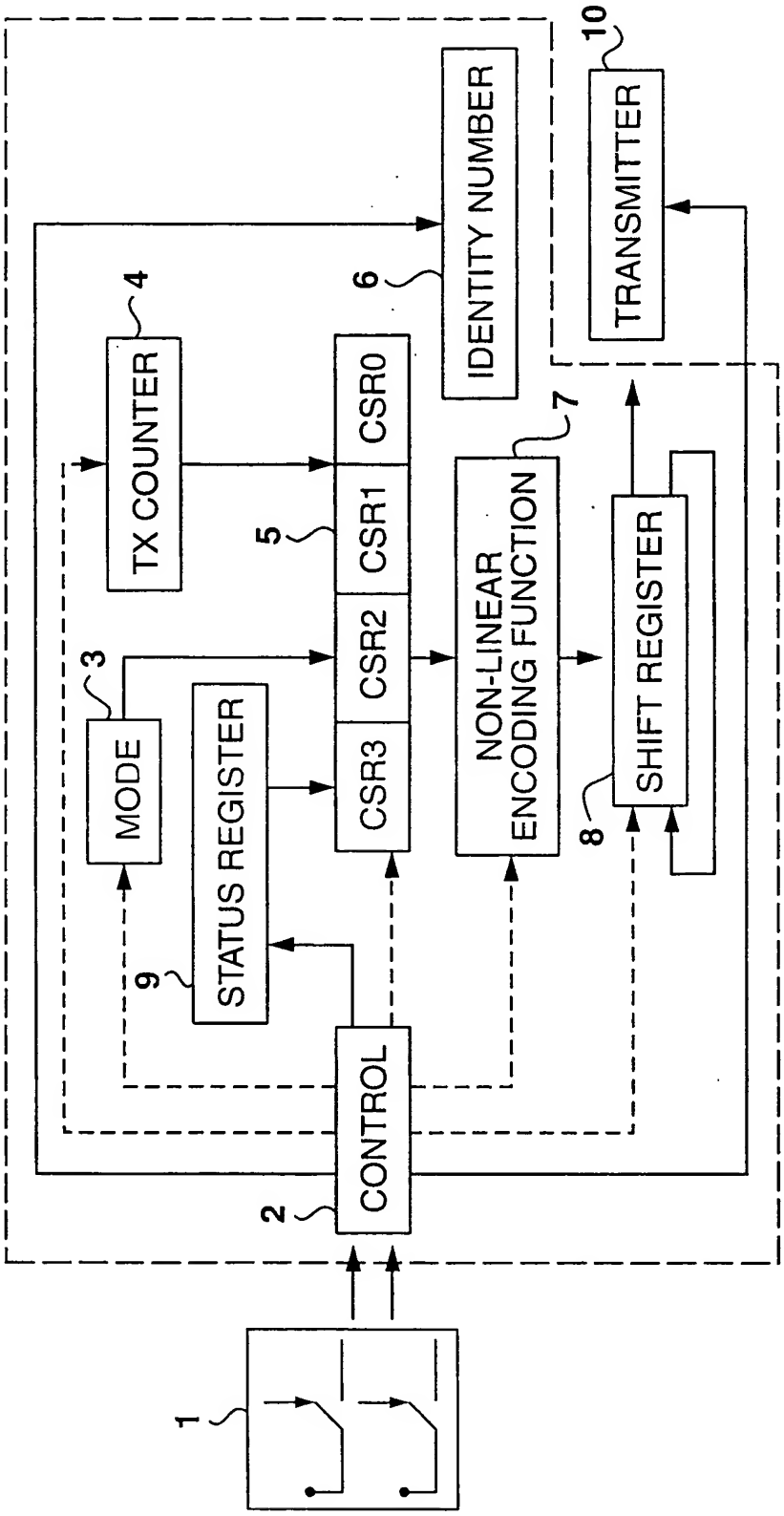

1
2
CONTROL
3
MODE
4
TX COUNTER
5
CSR0
CSR1
CSR2
CSR3
6
IDENTITY NUMBER
7
NON-LINEAR ENCODING FUNCTION
8
SHIFT REGISTER
9
STATUS REGISTER
10
TRANSMITTER

Fig. 1

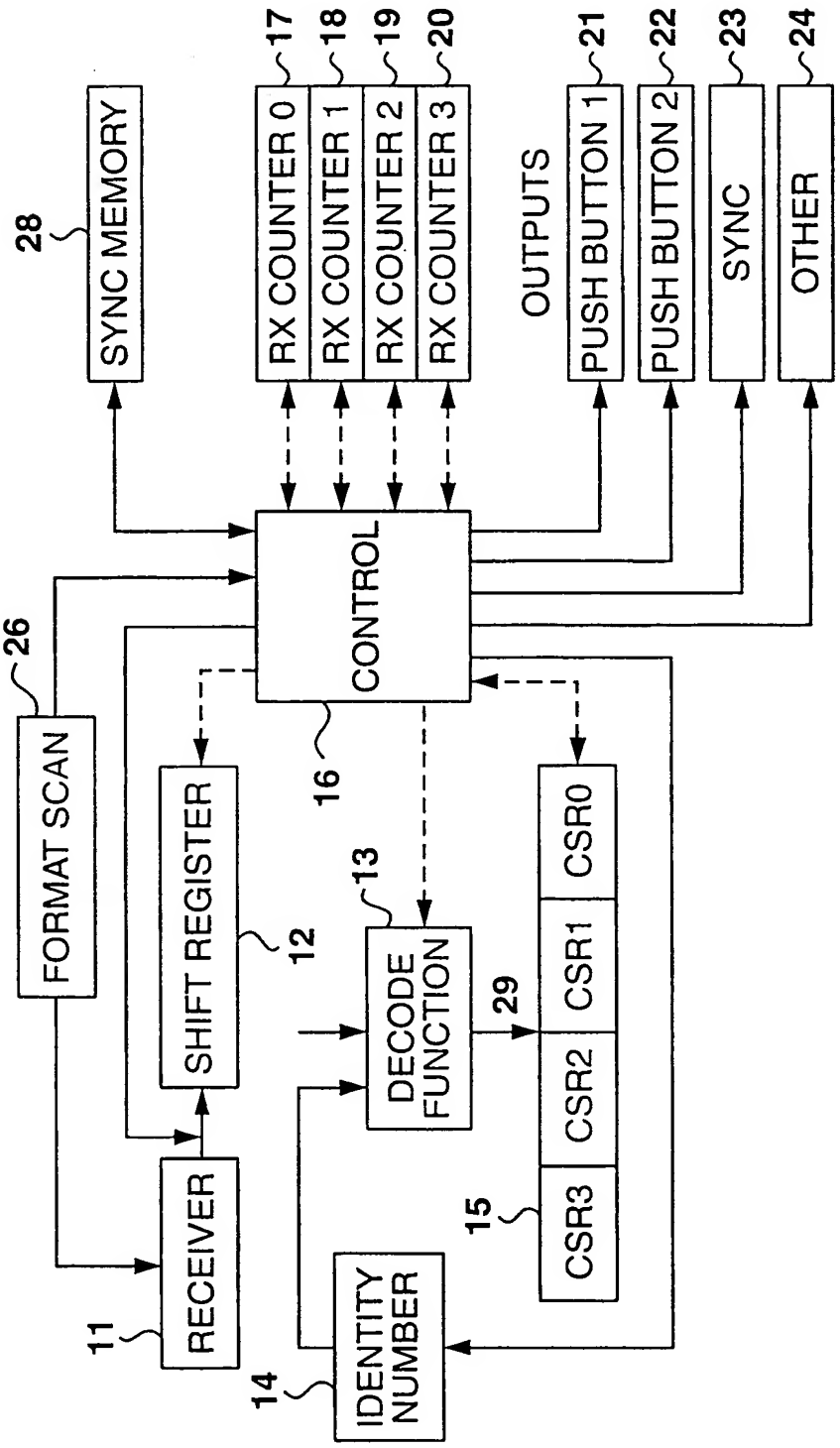

28
SYNC MEMORY
17
RX COUNTER 0
18
RX COUNTER 1
19
RX COUNTER 2
20
RX COUNTER 3
OUTPUTS
21
PUSH BUTTON 1
22
PUSH BUTTON 2
23
SYNC
24
OTHER
26
FORMAT SCAN
CONTROL
16
SHIFT REGISTER
12
13
DECODE FUNCTION
29
CSR0
CSR1
CSR2
CSR3
15
RECEIVER
11
IDENTITY NUMBER
14

Fig. 2

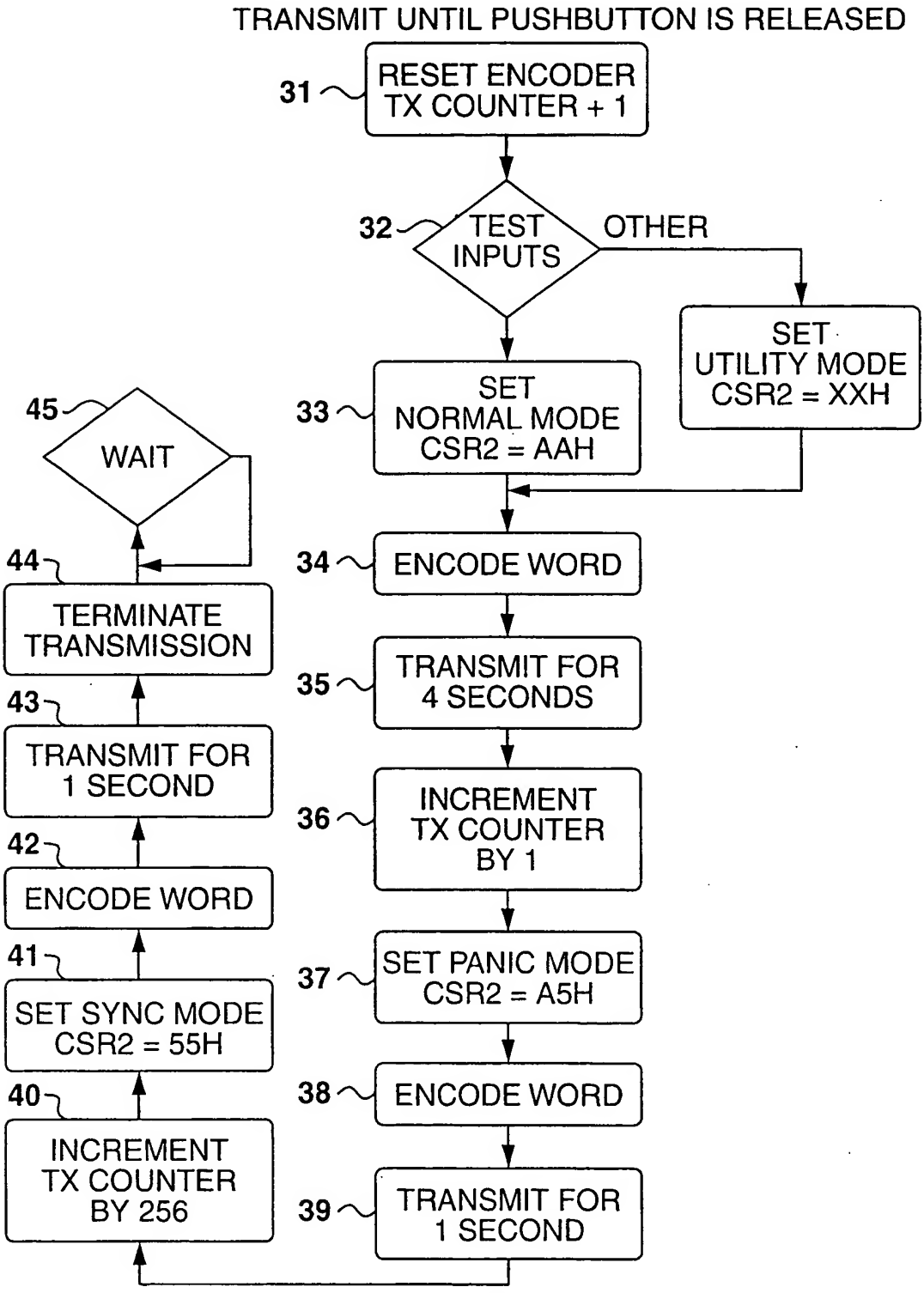

TRANSMIT UNTIL PUSHBUTTON IS RELEASED
31
RESET ENCODER
TX COUNTER + 1
32
TEST
INPUTS
OTHER
SET
UTILITY MODE
CSR2 = XXH
33
SET
NORMAL MODE
CSR2 = AAH
34
ENCODE WORD
35
TRANSMIT FOR
4 SECONDS
36
INCREMENT
TX COUNTER
BY 1
37
SET PANIC MODE
CSR2 = A5H
38
ENCODE WORD
39
TRANSMIT FOR
1 SECOND
40
INCREMENT
TX COUNTER
BY 256
41
SET SYNC MODE
CSR2 = 55H
42
ENCODE WORD
43
TRANSMIT FOR
1 SECOND
44
TERMINATE
TRANSMISSION
45
WAIT

Fig. 3

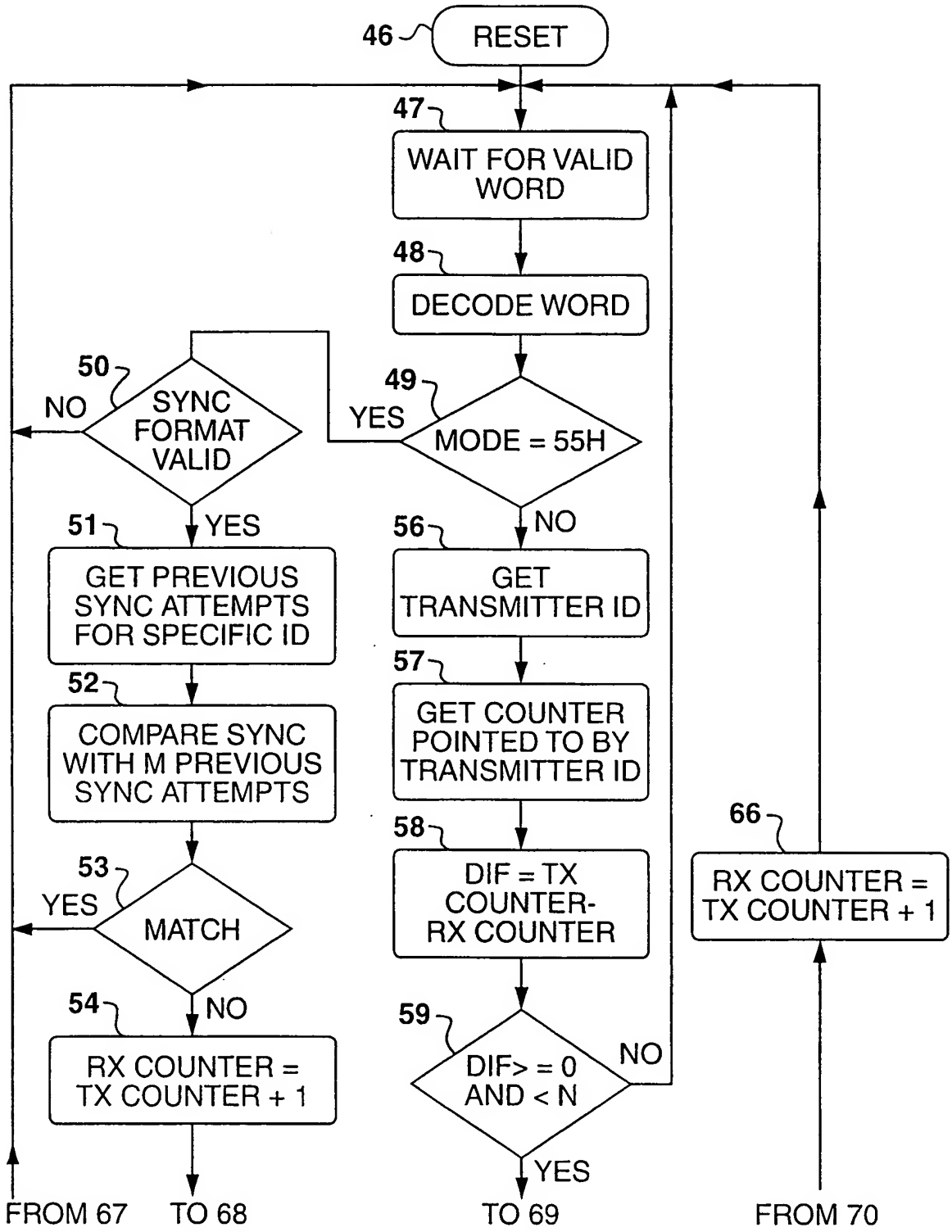

46
RESET
47
WAIT FOR VALID WORD
48
DECODE WORD
49
MODE = 55H
YES
NO
50
SYNC FORMAT VALID
NO
YES
51
GET PREVIOUS SYNC ATTEMPTS FOR SPECIFIC ID
52
COMPARE SYNC WITH M PREVIOUS SYNC ATTEMPTS
53
MATCH
YES
NO
54
RX COUNTER = TX COUNTER + 1
56
GET TRANSMITTER ID
57
GET COUNTER POINTED TO BY TRANSMITTER ID
58
DIF = TX COUNTER- RX COUNTER
59
DIF> = 0 AND < N
NO
YES
66
RX COUNTER = TX COUNTER + 1
FROM 67
TO 68
TO 69
FROM 70

Fig. 4A

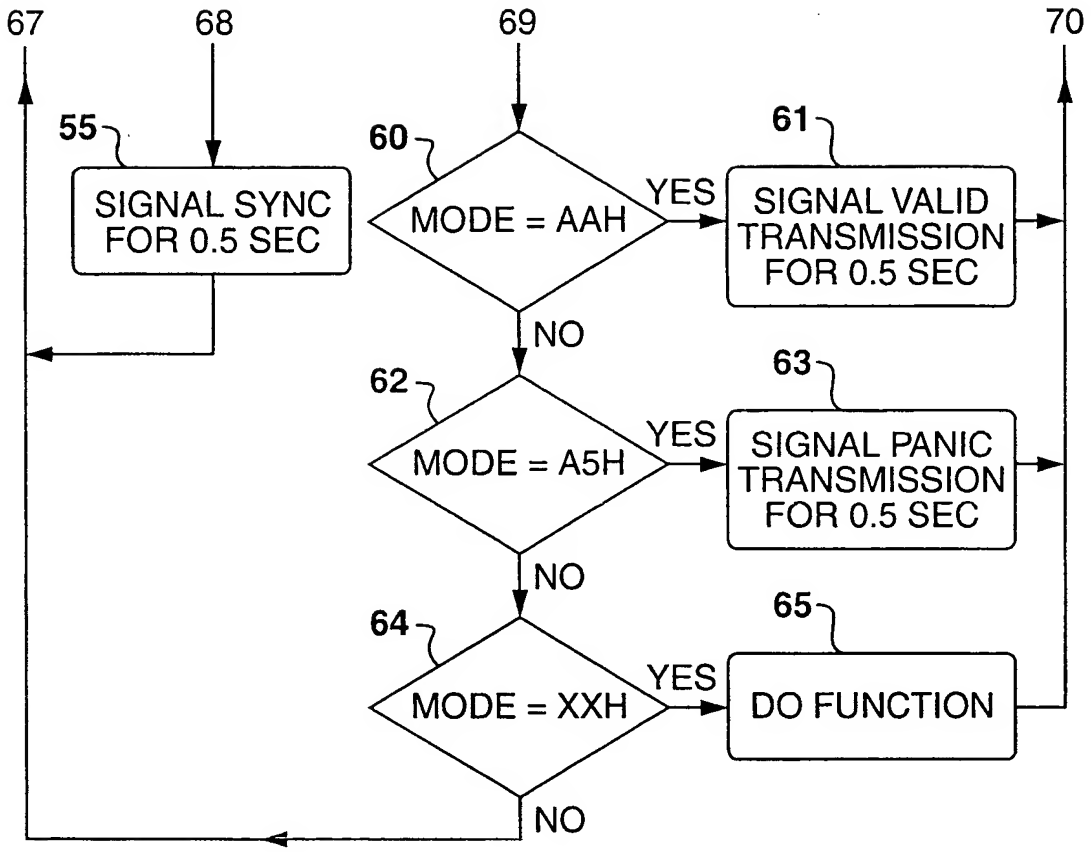
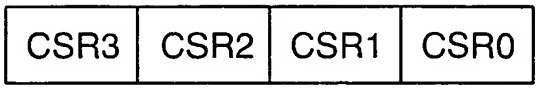
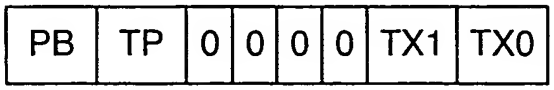

67
68
69
70
55
SIGNAL SYNC FOR 0.5 SEC
60
MODE = AAH
YES
61
SIGNAL VALID TRANSMISSION FOR 0.5 SEC
NO
62
MODE = A5H
YES
63
SIGNAL PANIC TRANSMISSION FOR 0.5 SEC
NO
64
MODE = XXH
YES
65
DO FUNCTION
NO

Fig. 4B

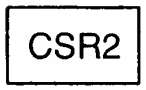




PB
0 PUSH BUTTON 1
1 PUSH BUTTON 2

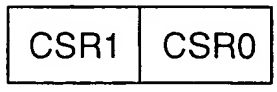
TP
0 VOLATILE COUNTER
1 NON VOLATILE COUNTER

TX1 TX0
0 0 TRANSMITTER 0
0 1 TRANSMITTER 1
1 0 TRANSMITTER 2
1 1 TRANSMITTER 3



MODE

AAH NORMAL CODE
A5H PANIC CODE
55H SYNC CODE
XXH UTILITY CODE



= COUNTER VALUE

Fig. 5

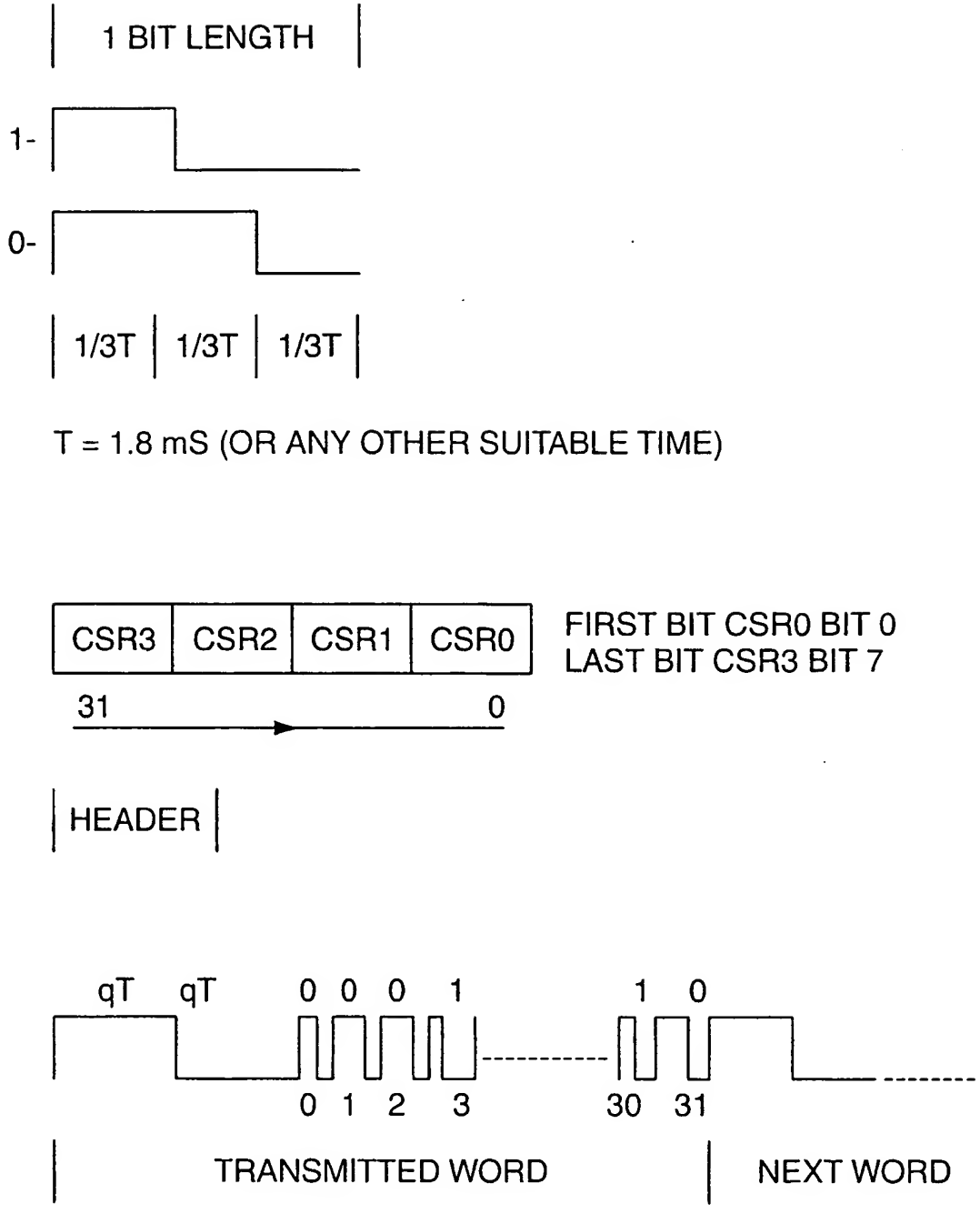

1 BIT LENGTH
1-
0-
1/3T
1/3T
1/3T
T = 1.8 mS (OR ANY OTHER SUITABLE TIME)
CSR3
CSR2
CSR1
CSR0
FIRST BIT CSR0 BIT 0
LAST BIT CSR3 BIT 7
31
0
HEADER
qT
qT
0 0 0 1
1 0
0 1 2 3
30 31
TRANSMITTED WORD
NEXT WORD

Fig. 6